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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,804	09/03/2003	Rudolf Maarten Bolle	YOR919990588US2	4520
7590 05/24/2005			EXAMINER	
Ryan, Mason & Lewis, LLP			DASTOURI, MEHRDAD	
Suite 205			ART UNIT	
1300 Post Road			PAPER NUMBER	
Fairfield, CT 06824			2623	

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/653,804

Applicant(s)

BOLLE ET AL.

Examiner

Mehrdad Dastouri

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-12 is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-9, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. Applicants' amendment/remarks filed December 8, 2004, has been entered and made of record.
2. Objection to oath/declaration has been withdrawn in view of newly submitted oath/declaration.
3. Objection to the disclosure has been withdrawn in view of Applicants' amendment.
4. The correct disposition of the claims is indicated in the Office Action Summary mailed on September 9, 2004.

***Information Disclosure Statement***

5. Applicants are requested to provide a copy of each Non Patent Literatures indicated in the IDS submitted on September 3, 2003.

***Response to Arguments***

6. Applicants' remarks/arguments have been fully considered but they are not persuasive. Concerning Claims 1-3 and 7-9, it is respectfully submitted that prior art of record (Westerman et al.) disclose acquisition of a sequence of discrete images as disclosed in Abstract, Lines 16-26; Column 7, Lines 25-28; Column 8, Lines 45-67, Column 9, Lines 1-36; and depicted in Figures 1, 16, 17, 21-23 and 30-35. The teachings of the secondary prior art of record (Pu) are merely cited for further emphasis on acquisition of a sequence of discrete print images.

It is further submitted that Westerman discloses determining distortion of the images as a function of time due to the change in position and orientation as indicated in Figure 34, wherein the hand's polar velocity (Variation of distance in time) and translation velocity components are calculated.

Regarding Claims 13 and 14, Pu discloses using a distortion of discrete print images as a function of time with one or more previously determined distortions of discrete print images as a function of time in order to identify and authenticate a person (Figure 1, 108; Column 4, Lines 55-67, Column 5, Lines 1-3; Column 6, Lines 3-12).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 7-9, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westerman et al., hereinafter Westerman, (U.S. 6,323,846) in view of Pu et al., hereinafter Pu, (U.S. 5,933,515).

Regarding Claim 1, Regarding claim 1, Westerman discloses a system comprising an acquisition device for acquiring and storing a sequence of discrete images from a part of a hand 2 moving during a time period (Abstract, Lines 16-26; Column 7, Lines 25-28; Column 8, Lines 45-67, Column 9, lines 1-36). Westerman also discloses a trajectory process that determines the position and orientation of the images

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as a function of time during the time period (Column 9, lines 24-35; Figure 35; Column 43, Lines 5-26). Westerman further discloses an estimator that determines a distortion of the discrete images as a function of time due to the change in position and orientation (Column 43, Lines 54-57) wherein the estimator process determines distortion by determining at least a motion of an image pattern occurring in one or more blocks of at least two of the discrete images (Column 43, Lines 54-57; Column 13, Lines 23-26, 49-54).

Westerman does not disclose a sequence of discrete print images. However, it is well known to extract motion information from various image sequences.

Pu teaches that it is known to acquire and store a sequence of discrete print images from a part of a hand moving during a period of time (Abstract, Lines 4-6; Column 6, Lines 20-49; Column 8, Lines 37-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the discrete images disclosed by Westerman to include discrete print images, as taught by Pu, in order to improve the identification capability.

Regarding Claim 2, Pu discloses the part of the hand including a fingerprint (Abstract, Lines 4-6).

Regarding Claim 3, Westerman discloses the distortion being caused by the rotation (Column 43, Lines 54-57).

Regarding Claims 7-9, the arguments analogous to those presented above for Claims 1-3 are applicable to Claims 7-9, respectively.

Regarding Claims 13 and 14, the arguments analogous to those presented above for Claim 1 are applicable to Claims 13 and 14. Westerman does not appear to recognize using the determined distortion to identify or authenticate a person. However, Pu discloses using a distortion of discrete print images as a function of time with one or more previously determined distortions of discrete print images as a function of time in order to identify and authenticate a person (Figure 1, 108; Column 4, Lines 55-67, Column 5, Lines 1-3; Column 6, Lines 3-12).

***Allowable Subject Matter***

9. Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. Claims 10-12 are allowed.

***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact Information***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehrdad Dastouri whose telephone number is (571) 272-7418. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (571) 272-7414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mehrdad Dastouri  
Primary Examiner  
Art Unit 2623  
May 22, 2005

**MEHRDAD DASTOURI**  
**PRIMARY EXAMINER**

*Mehrdad Dastouri*